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FEE TRANSMITTAL for FY 2003

Effective 01/01/2003. Patent fees are subject to annual revision.

 Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ 210)

METHOD OF PAYMENT (check all that apply)

 Check Credit card Money Order Other None

Deposit Account:

Deposit Account Number

50-2266

Deposit Account Name

Aclara Biosciences, Inc.

The Commissioner is authorized to: (check all that apply)

 Charge fee(s) indicated below Credit any overpayments

 Charge any additional fee(s) during the pendency of this application

 Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

FEE CALCULATION

1. BASIC FILING FEE

Large Entity	Small Entity	Fee Description	Fee Paid
Fee Code (\$)	Fee Code (\$)		
1001 750	2001 375	Utility filing fee	
1002 330	2002 185	Design filing fee	
1003 520	2003 260	Plant filing fee	
1004 750	2004 375	Reissue filing fee	
1005 180	2005 80	Provisional filing fee	
SUBTOTAL (1)		(\$ 0)	

2. EXTRA CLAIM FEES

Total Claims	-20 **	=	Extra Claims	Fee from below	Fee Paid
Independent Claims					
Multiple Dependent	-3 **	=	0	X	0

Large Entity	Small Entity	Fee Description	Fee Paid
Fee Code (\$)	Fee Code (\$)		
1202 18	2202 9	Claims in excess of 20	
1201 84	2201 42	Independent claims in excess of 3	
1203 280	2203 140	Multiple dependent claim, if not paid	
1204 84	2204 42	** Reissue independent claims over original patent	
1205 18	2205 9	** Reissue claims in excess of 20 and over original patent	
SUBTOTAL (2)		(\$ 0)	

** or number previously paid, if greater; For Reissues, see above

Complete if Known	
Application Number	09/825,246
Filing Date	April 2, 2001
First Named Inventor	Singh
Examiner Name	J. Tung
Group / Art Unit	1837
Attorney Docket No.	033.05US

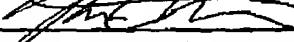
FEE CALCULATION (continued)

3. ADDITIONAL FEES	Large Entity	Small Entity	Fee Description	Fee Paid
			Surcharge - late filing fee or oath	
			Surcharge - late provisional filing fee or cover sheet	
			Non-English specification	
			For filing a request for reexamination	
			Requesting publication of SIR prior to Examiner action	
			Requesting publication of SIR after Examiner action	
			Extension for reply within first month	
			Extension for reply within second month	
			Extension for reply within third month	
			Extension for reply within fourth month	
			Extension for reply within fifth month	
			Notice of Appeal	
			Filing a brief in support of an appeal	
			Request for oral hearing	
			Petition to institute a public use proceeding	
			Petition to revive – unavoidable	
			Petition to revive – unintentional	
			Utility issue fee (or reissue)	
			Design issue fee	
			Plant issue fee	
			Petitions to the Commissioner	
			Processing fee under 37 CFR 1.17 (g)	
			Submission of Information Disclosure Stmt	
			Recording each patent assignment per property (times number of properties)	
			Filing a submission after final rejection (37 CFR § 1.129(a))	
			For each additional invention to be examined (37 CFR § 1.129(b))	
			Request for Continued Examination (RCE)	
			Request for expedited examination of a design application	
			Other fee (specify) _____	

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3)

(\$ 210)

SUBMITTED BY		Complete if applicable	
Name (Print/Type)	Stephen C. Melcavicz	Registration No. Attorney/Agent)	30,285 Telephone (650) 210-1223
Signature		Date	10 June 2004

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Case No. 033.05 (0225-0033.20)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Sharat Singh et al

Serial No: 09/825,246

Examiner: J. Tung

Filed: 02 April 2001

Art Unit: 1637

For: SETS OF OLIGONUCLEOTIDE-BINDING E-TAG PROBES

Confirmation No. 4459

RESPONSE

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Office Action dated 20 January 2004, Applicants submit the following remarks.

REMARKS

No claim has been amended or cancelled. Claims 16-17 and 19-29 are currently pending in the application.

Rejections Under 35 U.S.C. 103

In paragraph 5 of the Office Action, the Examiner rejected claims 16-17, 19-21, and 23-28 under 35 U.S.C. 103(a) as being unpatentable over Grossman (U.S. patent 5,470,705) in view of Kline (U.S. patent 5,459,078). The Examiner appears to argue as follows: Grossman describes a

technique for detecting a plurality of target polynucleotides that includes binding polymers with fluorescently labeled polymeric tails that have, or impart to the binding polymers, distinctive electrophoretic mobilities for separation and detection; thus, Grossman discloses the elements of Applicants' electrophoretic probes, except for capture ligands. Kline discloses an assay system employing a capture reagent comprising analyte-specific binding compounds attached to an anionic polymer. After analyte binds to the binding compounds (either displacing labeled analyte in the competitive format or further binding with a labeled antibody in the sandwich format), the entire complex is captured by an oppositely charged (cationic) solid phase. One of ordinary skill in the art would be motivated to add a biotin (or like capture ligand) to Applicants' electrophoretic probes in order to use an ion-capture reagent of Kline employing avidin (or like binding compound) to impart a charge to the probes opposite to that of the released eTag reporters of Applicants' invention.

Applicants respectfully disagree. Kline at most discloses an immunoassay employing a soluble capture reagent comprising multiple binding compounds, such as analyte-specific antibodies, bound to an anionic polymer. After incubation with a sample that contains analyte (and perhaps, in addition, labeled antibody when used in the sandwich format), the resulting negatively charged complex is captured with a positively charged solid phase (col. 6, lines 60-65) and removed from the reaction mixture (col. 18, line 64, to col. 19, line 4), where it is then detected (col. 19, lines 8-12). The thrust of Kline's invention is to provide a solution-phase analog to an enzyme-linked immunosorbent assay (ELISA) in order to avoid the difficulties of carrying out protein binding reactions near surfaces (col. 7, lines 4-11; also note that all detection in the examples is carried out enzymatically (alkaline phosphatase operating on a fluorogenic substrate)). In Kline, a charged capture reagent is combined with an oppositely charged solid phase to remove binding compound-analyte complexes from a reaction mixture for detection, whereas in Applicants' invention, charged capture agents are combined with unreacted electrophoretic probes and cleavage products thereof to give them a charge opposite of that of released eTag reporters so that they are not electrophoretically separated together. *That is, in Kline, a moiety is captured so that it can be detected, whereas, in Applicants' invention, a moiety is captured to prevent it from being detected.* Applicants' use of such charged capture agents results in a dramatic increase in resolution of electrophoretically separated eTag reporters, as illustrated in Figs. 26 and 27 of the application. Applicants submit that neither Kline nor Grossman, either alone or together, disclose or suggest, or provide motivation of, the concept of using charged capture agents to bind to *undesired components of a reaction mixture to exclude them from being separated and detected*

with oppositely charged reporter molecules, thereby increasing the sensitivity of assay measurements.

In view of the above, Applicants submit that the cited references have been inappropriately combined and do not render Applicants' invention obvious to one of ordinary skill in the art. Accordingly, Applicants respectfully request that the rejection be withdrawn.

In paragraph 6 of the Office Action, the Examiner rejected claim 22 under 35 U.S.C. 103(a) as being unpatentable over Grossman (cited above) in view of Kline (cited above) as applied above, and further in view of Huie (5,470,967). The Examiner applied Grossman and Kline as described above, and further cited Huie for its disclosure of nuclease-resistant inter-nucleoside linkages.

Applicants respectfully disagree with this rejection for the reasons given above regarding the application of Grossman and Kline, and for the reasons given on pages 9-10 of the Second Amendment dated 21 February 2003. Accordingly, Applicants respectfully request that the rejection be withdrawn.

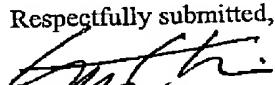
In paragraph 7 of the Office Action, the Examiner rejected claim 29 under 35 U.S.C. 103(a) as being unpatentable over Grossman (cited above) in view of Kline (cited above) and further in view of Ullman (U.S. patent 6,251,581). The Examiner applied Grossman and Kline as above and further argued that the specific structures recited in claim 29 are disclosed by the chemiluminescent compounds of Ullman.

Applicants respectfully disagree. First, as stated above, Applicants submit that Grossman and Kline have been inappropriately combined. Second, although Ullman discloses compounds similar to those recited in claim 29, the *compositions of Applicants' invention comprise pluralities of such compounds that form distinct peaks in an electropherogram upon electrophoretic separation*. Such compositions are neither disclosed nor suggested by Ullman. In fact, Ullman teaches away from such compositions because his objective is to provide a homogeneous assay based solely on optical (chemiluminescent) detection without any separation of the optically detected molecules; consequently, one of ordinary skill in the art would not be motivated to combine the teaching of Ullman with that of Grossman and Kline. Accordingly, Applicants respectfully request that the rejection be withdrawn.

In view of the above, Applicants submit that the claims as written fully satisfy the requirements of Title 35 of the U.S. Code, and respectfully request that the rejections thereunder be withdrawn and that the claims be allowed and the application quickly passed to issue.

If any additional time extensions are required, such time extensions are hereby requested. If any additional fees not submitted with this response are required, please take such fees from deposit account 50-2266.

Respectfully submitted,



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Enclosures:

Petition for Time Extension
Transmittal cover sheet with deposit account withdrawal
authorization.

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